CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CLEANUP AND ABATEMENT ORDER NO. 6-98-73
WDID NO. 6A099810N01

Requiring Equilon Enterprises, LLC, to
Clean Up and Abate the Effects of the Discharge
of Petroleum Products to the Ground Waters of the
Lake Tahoe Hydrologic Unit at the Shell Service Station,
2950 Highway 50, Meyers, El Dorado County

The California Regional Water Quality Control Board, Lahontan Region (Regional Board), finds:

1. The Shell Service Station is located at 2950 Highway 50 in Meyers, El Dorado County Assessor's Parcel Number 034-402-011. The property contains a gas station and food mart owned by Equilon Enterprises, LLC.

2. On October 21, 1998, a product line failed during a pressure test, resulting in approximately 640 gallons of gasoline to be discharged to the soil and underlying groundwater.

3. Excavation of gasoline-containing soil commenced on October 21, 1998, and groundwater was encountered at a depth of approximately 10 feet below ground surface. A groundwater sample collected from the bottom of the excavation contained petroleum hydrocarbons at the following concentrations:

Total petroleum hydrocarbons (Gasoline)	165,000 µg/L (ppb)
Benzene	3,570 µg/L
Toluene	28,200 µg/L
Ethylbenzene	4,860 µg/L
Xylenes	27,400 µg/L
Methyl tertiary-butyl ether (MTBE)	352,000 µg/L

4. On October 22, 1998, groundwater pumping commenced from the bottom of the excavation to a temporary storage tank on site.

5. A groundwater sample collected on October 23, 1998 from monitoring well S-1 at the site contained petroleum hydrocarbons at the following concentrations:

Total petroleum hydrocarbons (Gasoline)	71 µg/L (ppb)
Benzene	0.57 µg/L
Toluene	1.6 µg/L
Methyl tertiary-butyl ether (MTBE)	13 µg/L

6. The beneficial uses of ground water in the area as designated in the 1995 Water Quality Control Plan for the Lahontan Region include municipal and domestic supply, agricultural supply, fresh water replenishment, and industrial service supply.

7. The 1995 Water Quality Control Plan for the Lahontan Region establishes water quality objectives for the protection of beneficial uses. Those objectives include the following Maximum Contaminant Levels (MCLs) and Action Levels (ALs) that have been established by the California Department of Health Services as safe levels to protect public drinking water supply:

Benzene	1 µg/L (MCL)
Toluene	150 µg/L (MCL)
Ethylbenzene	700 µg/L (MCL)
Xylenes	1750 µg/L (MCL)
MTBE	35 µg/L (AL)

The Water Quality Control Plan contains the following narrative taste and odor objectives for the Lake Tahoe Hydrologic Unit:

> Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as municipal and domestic supply, at a minimum, concentrations shall not exceed adopted secondary maximum contaminant levels specified in . . . Title 22 of the California Code of Regulations which is incorporated by reference into this plan.

The following Taste and Odor Thresholds (TOT) are adopted or proposed as secondary water quality goals by the United States Environmental Protection Agency or the California Department of Health Services for drinking water. Petroleum concentrations above these levels would violate the narrative taste and odor objective in the Water Quality Control Plan:

Total Petroleum Hydrocarbons (Gasoline)	50 µg/L (TOT)
Toluene	42 µg/L (TOT)
Ethylbenzene	29 µg/L (TOT)
Xylenes	17 µg/L (TOT)
MTBE	5 µg/L (TOT-proposed)

The more stringent numeric standard is the applicable water quality objective for each constituent.

7. The ground water concentrations of Total Petroleum Hydrocarbons (Gasoline), Benzene, Toluene, Ethylbenzene, Xylenes, and MTBE (Finding No. 3) exceed water quality objectives that are protective of water quality for ground water specified in the 1995 Water Quality Control Plan for the Lahontan Region. The concentrations adversely affect the ground water for its designated uses listed in the 1995 Water Quality Control Plan for the Lahontan Region: municipal and domestic supply, agricultural supply, fresh water replenishment, and industrial service supply. The levels of waste in ground water, therefore, constitute a pollution, as defined in Section 13050 of the California Water Code.

8. The location of the broken gasoline supply line at the Shell Service Station is approximately 1,800 feet upgradient from the South Tahoe Public Utility District's (STPUD's) Arrowhead municipal supply wells and approximately 2,800 feet upgradient from STPUD's Bakersfield

municipal supply well. STPUD has destroyed the Arrowhead wells due to petroleum product pollution from another gas station and is currently constructing a deeper municipal supply well that taps a deeper aquifer in the same location.

9. The discharge of petroleum products to the ground waters of the Lake Tahoe Hydrologic Unit as described in Finding No. 3, above, violates a prohibition for the Lake Tahoe Hydrologic Unit contained in the 1995 Water Quality Control Plan for the Lahontan Region. Specifically, the discharge violates and threatens to violate the following discharge prohibition in the Plan:

   "The discharge of . . . waste as defined in Section 13050(d) of the California Water Code which would violate the water quality objectives of this plan, or otherwise adversely affect the beneficial uses of water designated by this plan, is prohibited."

10. This enforcement action is being taken by this regulatory agency to enforce the provisions of the California Water Code and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) in accordance with Section 15321, Chapter 3, Title 14, of the California Code of Regulation.

THEREFORE, IT IS HEREBY ORDERED that pursuant to California Water Code Sections 13267 and 13304, Equilon Enterprises, LLC, shall clean up and abate the discharge and threatened discharge of petroleum hydrocarbons and other wastes discharged to waters of the State, and shall comply with the provisions of this order:

1. Equilon Enterprises, LLC, shall conduct the investigation and cleanup tasks by or under the direction of a California registered geologist or civil engineer experienced in the area of groundwater pollution cleanup.

2. Equilon Enterprises, LLC, shall not cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into waters of the State.

3. By **November 13, 1998**, commence groundwater extraction from one or more wells to contain and remediate petroleum product contamination in ground water resulting from the October 21, 1998 unauthorized discharge of gasoline to the soil and ground water from the Shell Service Station at 2950 Highway 50 in Meyers.

4. By **November 20, 1998**, collect groundwater samples from the extraction well or wells and the existing monitoring well S-1 at the site. Water samples must be analyzed for gasoline-range petroleum hydrocarbons (TPH-g); benzene, toluene, ethylbenzene, xylenes (BTEX); MTBE; tertiary-butyl alcohol (TBA); di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), and tertiary amyl methyl ether (TAME). Submit laboratory analytical results to the Board within 10 days of sampling.

5. By **November 20, 1998**, implement the groundwater investigation workplan submitted October 29, 1998. The groundwater investigation must include sampling and analysis of ground water from the groundwater monitoring points in the approved workplan and measurement of groundwater potentiometric surface elevations at the monitoring points.

Submit by facsimile the groundwater elevations and results of laboratory chemical to Regional Board staff within ten calendar days of sampling.

Investigation requirements include the following:

Analyses: Analyses submitted pursuant to the investigation must include TPH-g, BTEX, and gasoline oxygenates including MTBE, TBA, DIPE, ETBE, and TAME. Analyses for oxygenates shall be by EPA Method 8260 or its equivalent. Detection limits for BTEX and oxygenates shall not be greater than 0.5 ppb in aqueous samples and 5 ppb in soil samples. The detection limit for TBA shall not be greater than 5 ppb in aqueous samples and 250 ppb in soil samples. The detection limit for TPH-g shall not be greater than 50 ppb in aqueous samples and 500 ppb in soil samples.

Quality assurance/quality control: QA/QC samples shall include 1) one trip blank per cooler and 2) one equipment blank per piece of sampling equipment (sample bailer, sample pump, etc.); if disposable bailers are used for sampling, one equipment blank shall be submitted from one representative bailer per sampling round. Laboratory QA/QC samples shall be analyzed for TPH-g, BTEX, and MTBE. Confirm positive identifications with GC/MS methods.

Well survey: Groundwater monitoring wells shall be surveyed by a California licensed land surveyor. The survey shall be referenced to the North American Datum of 1927 (NAD27) and the National Geodetic Vertical Datum of 1929 (NGVD29). Groundwater elevations shall be reported in reference to these surveyed data. Groundwater elevation data shall be collected from all wells at and around the site within a three hour period in order to produce comparable data.

6. By **January 8, 1999**, and by the 8th of **every month thereafter**, collect groundwater elevations from all monitoring wells and extraction wells, and sample the wells for chemical analyses. The analyses must include TPH-g; BTEX; and gasoline oxygenates including MTBE, TBA, DIPE, ETBE, and TAME. Analyses for oxygenates shall be by EPA Method 8260 or its equivalent. Detection limits for BTEX and oxygenates shall not be greater than 0.5 ppb in aqueous samples. The detection limit for TBA shall not be greater than 5 ppb in aqueous samples. The detection limit for TPH-g shall not be greater than 50 ppb in aqueous samples.

7. By **January 5, 1999**, submit a technical report to the Regional Board that presents the results of the groundwater investigation and that assesses whether the remediation efforts required under Order No. 3 have hydraulically contained the petroleum products and gasoline additives, will remove the contaminants, and will prevent migration of the plume toward the STPUD Bakersfield and Arrowhead municipal drinking water supply wells when they are in operation. The report shall include analytical chemistry data, groundwater elevation data, monitoring well construction details, and figures depicting isoconcentrations of TPG-g, benzene, and MTBE, and the extent of free-phase petroleum product. The investigation shall define the vertical and areal extent of petroleum products and gasoline additives that exist in soil and ground water in the area of and surrounding the Shell Service Station property.

Results of the investigation shall include text interpretation of data collected and recommendations for further action that is necessary to define the extent of contamination (including installation of monitoring wells) and to contain and remediate the entire extent of contaminated ground water at and around the site. This report shall also include a summary of work performed and data collected during the current interim remedial action activities (soil and groundwater excavation, or extraction, and testing).

8. By **January 22, 1999** and by the 22nd of **every month thereafter**, submit (by facsimile) the monitoring well analytical results and groundwater elevations to the Regional Board (results of each monitoring round are to be transmitted to Regional Board staff within fourteen calendar days of sampling).

9. By **March 12, 1999** and by the 12th of **every third month thereafter**, submit monitoring reports. The report must contain progress on the cleanup status which demonstrates continued compliance with cleanup actions required by the Regional Board. The reports must include summaries of the on-going monthly groundwater monitoring data to show the concentrations of MTBE, other gasoline product oxygenates, BTEX, and TPH-g, in ground water. All data shall be cumulatively tabulated. The report must contain a list of and an explanation of each instance when the groundwater cleanup system(s) is inoperative for 12 hours or more. The Regional Board must be notified by facsimile within one working day after the remediation system is observed to be inoperative.

Failure to comply with the terms or conditions of this Cleanup and Abatement Order will result in additional enforcement action, which may include the imposition of administrative civil liability pursuant to Sections 13268 and 13350 of the California Water Code or referral to the Attorney General of the State of California for such legal action as he or she may deem appropriate.

Ordered by:_____ Dated:_____

HAROLD J. SINGER
EXECUTIVE OFFICER